

**PATENT CLAIMS**

1. Piston made of dimensionally stable material and enclosed at the outer periphery by a sealing ring (1) made of elastically yielding material and capable of being inflated radially outward.
2. Piston according to Claim 1, characterized in that the sealing ring (1) is made of a polymeric material.
3. Piston according to one of Claims 1 or 2, characterized in that the sealing ring (1) is made of a PTFE compound.
4. Piston according to one of Claims 1 to 3, characterized in that said piston is provided with a jacket (2) in the form of a hollow cylinder and which for the purpose of inflating the sealing ring (1) has at least one recess (3) linking a pressurizable working space (4) with the inner peripheral surface (5) of the sealing ring (1).
5. Piston according to Claim 4, characterized in that the working space (4) is limited by a housing (6) enclosing the piston.
6. Piston according to one of Claims 1 to 5, characterized in that in its inflatable region (7) the sealing ring (1) is provided with at least one sealing lip (9) capable of elastically expanding outward and touching the sealing surface (8) of the housing (6).

7. Piston according to one of Claims 1 to 6, characterized in that the sealing lip (9) is in the form of a hinged film.
8. Piston according to one of Claims 1 to 7, characterized in that the automatic inflation of the sealing ring (1) occurs exclusively as a function of the pressure in the working space (4).
9. Piston according to one of Claims 1 to 8, characterized in that the medium for inflating the sealing ring (1) is hydraulic or pneumatic.
10. Piston according to one of Claims 1 to 9, characterized in that the inflatable region (7) is located frontally at one side of the sealing ring (1).
11. Piston according to one of Claims 1 to 10, characterized in that only the inflatable region (7) of the sealing ring (1) touches the sealing surface (8) of the housing (6) in a sealing manner.
12. Piston according to one of Claims 1 to 10, characterized in that the inflatable region (7) is located frontally on one side of the sealing ring (1) and that frontally on the other side of the sealing ring (1), on the side facing axially away, there is provided a sealing lip (10).

**SUMMARY**

Piston made of a dimensionally stable material and which on the outer peripheral side is surrounded by a sealing ring (1) capable of inflating outward and made of an elastically yielding material.

(Fig. 1).